



Attorney Docket No. 22660-0027



## CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on August 8, 2001.

*Rachel Hernandez*  
Rachel Hernandez

1743/11

PATENTS

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

: Group Art Unit: 1743

Taylor et al.

: Examiner: Not assigned

584

PCO → Serial No: 09/548,327

: Customer No.: 25213

Filed: May 30, 2000

:

Title: APPARATUS AND METHOD FOR CELL DISRUPTION

Commissioner for Patents  
Washington, DC 20231

Dear Sir:

**TRANSMITTAL LETTER**

Transmitted herewith for filing in the above-entitled patent application are the following:

1. Preliminary Amendment
2. 37 CFR §1.607 Request To Provoke Interference With Patent
3. Return receipt postcard

**Deposit Account Authorization**

[X] There is an increase in the number of independent, dependent or multiple dependent claims beyond those previously paid for. The required fee is calculated below.

Claims Remaining After Amendment: 85 Total, 13 Independent  
Highest No. Previously Paid For: 82 Total, 10 Independent

Additional independent claims: <u>3</u> @ \$40 each.....	\$120.00
Additional claims: <u>_</u> @ \$9 each.....	\$0.00
Multiple Dependency Fee: <u>_</u> @ \$270 or \$135 each .....	<u>\$0.00</u>
 TOTAL FEE DUE: .....	 <u>\$120.00</u>

[X] The Commissioner is authorized to charge the additional claim fee (\$120) and any additional fees which may be required under 37 CFR §1.16 or §1.17, to Deposit Account No. 08-1641, referencing Docket No. 22660-0027. A duplicate sheet is attached.

[ X ] Correspondence Customer Number: 25213.

Respectfully submitted,



William Schmonsees  
Attorney for Applicants  
Reg. No. 31,796

Date: August 8, 2001

Heller Ehrman White & McAuliffe LLP  
275 Middlefield Road  
Menlo Park, CA 94025-3506  
Tel: (650) 324-7041  
Fax: (650) 324-0638

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Attorney Docket No. 22600-0027

PATENTS

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Title: APPARATUS AND METHOD FOR CELL DISRUPTION

Commissioner for Patents  
Washington, DC 20231

Sir:

37 CFR §1.607 REQUEST TO PROVOKE INTERFERENCE WITH PATENT

Applicants hereby request that an interference be declared pursuant to 37 CFR §1.607 between the present application and the below identified unexpired U.S. Patent No. 6,100,084 (the "084 patent"). Applicants claim substantially the same subject matter as the claims of the '084 patent. The subject matter of the claims of the '084 patent was invented by applicants prior to the effective filing date of the '084 patent. New claims 83 and 84 are copied verbatim from claims 1 and 15 of the '084 patent.

1. The unexpired patent is U.S. Patent No. 6,100,084, "MICRO-SONICATOR FOR SPORE LYSIS", Miles, R. R. et al., issued on August 8, 2000.

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Applicants note that U.S. Patent No. 6,100,084 has a filing date of November 5, 1998.

The present application claims priority from U.S. provisional application Ser. No. 60/136,703, filed May 28, 1999. The present application is also a continuation-in-part of, and claims priority from, U.S. application Ser. No. 09/469,724 filed December 21, 1999.

Since the present application claims a priority filing date more than three months after that of the application that matured into the '084 patent, Applicants will submit evidence that they are *prima facie* entitled to judgment relative to the patentee, as required under 37 CFR §1.608(b).

2. Pursuant to 37 CFR §1.607(a)(2), applicants present the following proposed Counts:

Count 1:

A device for spore or cell lysis comprising:  
a container having a cavity therein adapted to contain spore or cell samples,  
a quantity of ultrasonic transmission media in said cavity,  
at least a membrane positioned to cover said cavity,  
piezoelectric material positioned on said membrane, and  
means for causing flexing of said piezoelectric material and vibration of said membrane thereby causing ultrasonic excitation of the transmission media adapted to cause lysis of spore or cell samples in said cavity.

Count 2:

A device for spore or cell lysis comprising:  
a container having a chamber for holding spore or cell samples,

a quantity of ultrasonic transmission media in said chamber,  
a membrane forming at least one wall of the chamber, and  
an ultrasonic transducer in contact with said membrane for transmitting ultrasonic  
waves to the chamber.

3. Applicants submit that claims 1-14, 17, and 18 of the '084 patent correspond to the proposed Count 1 and that claims 15 and 16 correspond to the proposed Count 2.

4. Applicants submit that Claim 83 of the present application corresponds to proposed Count 1 and claims 84 and 85 correspond to the proposed Count 2.

*09/548,327 - PCO*

5. In accordance with 37 CFR §6.107(a)(5), the claims may be specifically applied to

applicants' disclosure as follows:

	New Claims	Applicants' Disclosure
83.	A micro-sonicator for spore or cell lysis comprising: a container having a cavity therein adapted to contain spore or cell samples,	Page 4, lines 30-31; page 5, lines 7-9; page 107, lines 13-17.
	a quantity of ultrasonic transmission media in said cavity,	Page 5, line 25-31; page 87, line 28 through page 88, line 4.
	at least a membrane positioned to cover said cavity,	Page 5, lines 9-12; page 66, lines 24-32.
	piezoelectric material positioned on said membrane,	Page 17, line 25; page 18, lines 1-3.
	and means for causing flexing of said piezoelectric material and vibration of said membrane thereby causing ultrasonic excitation of the transmission media adapted to cause lysis of spore or cell samples in said cavity.	Page 5, lines 10-18; page 17, lines 25-26; page 66, line 22 through page 67, line 3; page 79, line 29 through page 80, line 2.
84.	In a micro-fluidic system, the improvement comprising: a micro-sonicator for spore and cell lysis using ultrasonic excitation of the spore or cell,	Title, page 1, line 9; page 4, lines 30-31; page 17, lines 24-26; page 67, lines 1-3.
	said micro-sonicator including a container having a cavity therein and containing ultrasonic transmission media,	Page 5, lines 7-10; page 87, line 28 through page 88, line 4.
	a membrane positioned over said cavity,	Page 5, line 9; page 66, lines 24- 32.
	and means for causing vibration of said membrane producing ultrasonic excitation of spore or cell located in said cavity.	Page 5, lines 11-13; page 17, lines 24-26; page 66, line 22 through page 67, line 3; page 107, lines 13-28.
85.	A device for spore or cell lysis comprising: a container having a chamber for holding spore or cell samples,	Page 4, lines 30-31; page 5, lines 7-9; page 107, lines 13-17.
	a quantity of ultrasonic transmission media in said chamber,	Page 5, line 25-31; page 87, line 28 through page 88, line 4.
	a membrane forming at least one wall of the chamber, and	Page 5, lines 9-12; page 66, lines 24-32.

	an ultrasonic transducer in contact with said membrane for transmitting ultrasonic waves to the chamber.	Page 5, lines 10-18; page 17, lines 15-26; page 66, line 22 through page 67, line 3; page 79, line 29 through page 80, line 2; page 107, lines 13-15.
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Applicants will comply with any additional requirements of 37 CFR §1.607 in due course and it is respectfully requested that Applicants' attorneys be contacted prior to issuance of any Office Action.

Respectfully submitted,

By:

  
William Schmonsees  
Attorney for Applicants  
Registration No. 31,796

Date: August 8, 2001

Heller Ehrman White & McAuliffe LLP  
275 Middlefield Road  
Menlo Park, CA 94025-3506  
**Direct Dial: (650) 324-7104**  
Facsimile: (650) 324-0638